[dwallace@qcsd.org](mailto:dwallace@qcsd.org) Help Hours:

267-371-1237 Before school 7am **by appointment**

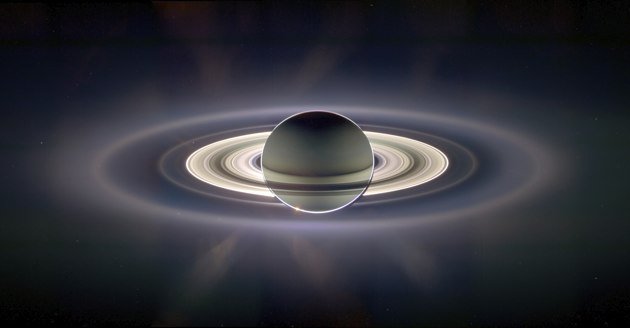
Prep: 2p.m. – 3p.m.

**Astronomy 9: Syllabus**

**Mr. Wallace**

**What is a Syllabus:** A syllabus is an outline and summary of topics to be covered in an educational or training course. A syllabus is meant to provide students receiving the education or training with a knowledge of what to expect, starting and ending points.

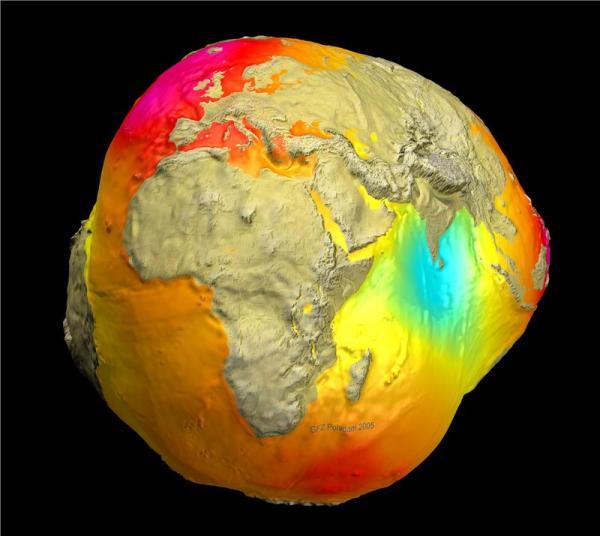
**BIG Ideas:** Composition and Structure of the Universe; Nature of Waves (Sound and Light Energy); Science as Inquiry; Scientific Communication



**LT.I. Introductory Concepts:**

* What is Astronomy?
* Scale of the Cosmos
* Scientific Notation
* Concept of Space and Time

**LT.II. History of Astronomy**

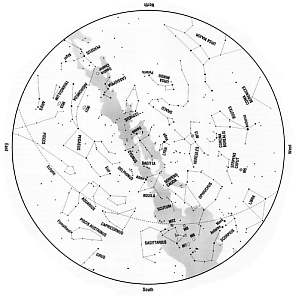
* Practice of Astronomy throughout different periods in human history
* Cosmological Views and Contributions of Ancient Cultures, The Greeks (Golden Age) and of famous Early Astronomers (Renaissance Period)
* Evolution of Our Understanding of the Universe

**LT.III. Newton’s Gravity**

* Properties of Gravity
* Newton’s Laws & The Law of Universal Gravitation

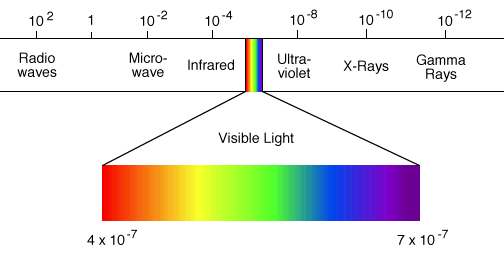
**LT.IV. Earth-Moon-Sun System (EMS)**

* Earth Motions
* Lunar Motions
* Lunar Surface/History

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**LT.V. The Celestial Sphere**

* Motions of the Sky & The Celestial Sphere
* Constellations & Mapping the Sky

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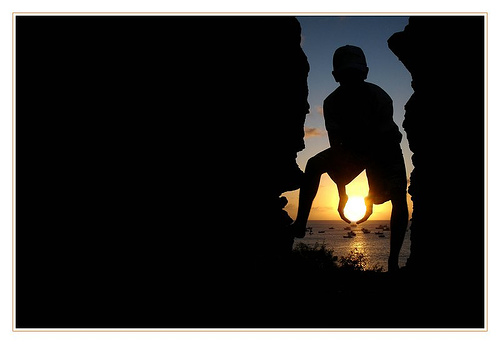
**LT.VI. The Study of Light**

* Electromagnetic Spectrum/Radiation
* Spectroscopy
* Doppler Effect

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**LT.VII. Tools for Studying Space**

* Refracting Telescopes
* Reflecting Telescopes
* Radio Telescopes
* Special Telescopes

**LT.VIII. The Sun**

* Structure/Organization
* Solar Activity
* Solar Interior

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**LT.IX. Stellar Properties**

* Stellar Characteristics
* Measuring Distance
* Stellar Brightness
* H-R Diagram
* ISM

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**LT.X. Stellar Evolution**

* Star Birth
* Main Sequence
* Burnout and Death
* Stellar Remnants

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**LT.XI. Galaxies/Cosmology & SETI**

* Types of Galaxies
* The Universe
* Search for Extraterrestrial Intelligence

**Additional Course Requirements:**

* Current Events Assignments (at least 5)

\*These assignments entail research of current news in astronomy/space studies along with handwritten summary/reaction pieces. Scores will be factored into the **Scientific Communication Learning Target**.

* Observations: Selected observations given by instructor.

**Textbook:**

Pgs. 612-727

**Online Resources:**

[www.wallaceastronomy.wikispaces.com](http://www.wallaceastronomy.wikispaces.com) and links contained within.